DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Dominion Power Virginia City Permit Application for a DEQ Water Protection Permit Frequently Asked Questions

The following is an attempt by the Department of Environmental Quality's Water Division to provide answers to frequently asked questions by the public on the Virginia Water Protection Permit (VWP) application that Dominion Power has submitted to DEQ for impacts to state water proposed by the construction of the plant's solid waste landfill. The permit application is for the grading and filling of the 3,880 ft of stream and 0.42 acre of wetlands as site preparation for construction of the landfill. The permit application proposes compensation for the loss of the stream and wetland by, perpetual protection from disturbance of an adjacent watershed, measuring approximately 6,100 ft of stream, from future disturbance, restoration of approximately 1,580 ft of a low quality stream using state of the art natural stream design including protections and enhancement of buffer zones along the stream. Also, they plan to create an additional 2 acres of wetland. This permit application has a very narrow focus and other permits must be obtained concerning air emissions, landfill design and waste water discharges from the plant about other issues.

1. What is the Virginia City Hybrid Energy Center Project?

   Virginia Electric and Power Company, doing business as Dominion Virginia Power, is proposing to design, construct, operate and maintain a 585-megawatt (668 megawatts gross electrical output) coal fired electric generation facility and an associated Solid Waste Management Facility in Southwest Virginia. Together these facilities are known as the Virginia City Hybrid Energy Center Project. The proposed site location is in Wise County, Virginia, approximately 1.7 miles west of the Town of Saint (St.) Paul along U.S. Alternate Highway 58 in the community known as Virginia City on an existing mine reclamation site.

   The Project will consist of the new Power Plant and the requisite material handling areas, road and utility infrastructure systems, and an industrial waste landfill to receive the coal combustion by-products (ash).

2. What Permits will be required from the Virginia Department of Environmental Quality for the Dominion plant?

   The project will require the following permits from the Department of Environmental Quality:

   - A permit from the DEQ Air Division for an air quality emissions permit under the Clean Air Act. This application is under review by DEQ at this time.
   - A Virginia Pollutant Discharge Elimination System (VPDES) permit for the discharge of storm water runoff from the facility. This permit application has not been received by DEQ.
   - A Virginia Water Protection permit for the proposed impacts to wetlands and waterways which result from the construction and operation of the facility.
   - A permit from the DEQ Waste Division for the construction and operation of the solid waste landfill. DEQ is in receipt of the Part A application.

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3. How much water will the facility use?

The Power Plant is estimated to require up to one million gallons of water per day for operating activities. In order to reduce water consumption by the Power Plant down to one million gallons per day, a dry-cooling process was selected for use with the CFB boilers. This dry-cooling process, also referred to as air-cooling, substantially reduces the amount of water that will be used by the Power Plant, minimizing impact to aquatic resources in the area. A standard power generating plant of similar size and design without a dry-cooling process could require up to 12 million gallons of water per day for operating activities.

In order to further minimize impacts to sensitive habitats, water for the Power Plant will be purchased from the Wise County Public Service Authority (WCPSA), eliminating the need for a new water intake on the Clinch River,. Wise County will install new supply piping along U.S. Alternate Highway 58 from the WCPSA Carfax water plant to the Power Plant site. Supply water provided from the WCPSA will be stored in an on-site tank that would also serve as the water source for the Power Plant fire protection system.

4. Will the facility discharge wastewater into the surface streams?

The discharge of Power Plant and landfill process water is proposed to be collected on-site, pretreated to meet all requirements and discharged to the Town of St. Paul's Wastewater Treatment Plant (WWTP). Wise County will install new discharge piping infrastructure along Highway 58 from the WWTP to the Power Plant. Dominion will not discharge water to the WWTP until the town of St. Paul has upgraded their treatment facilities and infrastructure to receive and treat the wastewater from the Power Plant and landfill. The discharges from the facilities will not prevent the WWTP from maintaining compliance with its existing Virginia Pollutant Discharge Elimination System (VPDES) permit requirements. There will be no direct discharges into public streams or waterways from the power plant, other than storm water runoff permitted by the VDEQ under a VPDES storm water discharge permit.

5. What must the Town of St Paul do in order to receive the wastewater from the plant?

The existing wastewater treatment system for the Town of St Paul is proposed to be upgraded to accommodate growth to include surrounding residual and industrial sources including the proposed power plant. The Town has indicated that it wishes to upgrade the treatment plant to serve some surrounding residual areas that are having failing septic system problems and contributing to poor water quality in the area stream in addition to serving the power plant.

In order for the Town to upgrade the WWTP and accept new users, the town must obtain a permit modification from DEQ for the sewage treatment plant. If the permit modification is approved, the Town must submit the engineering design plans to DEQ for review and approval.

In order for the Town to accept the wastewater from the Dominion power plant, the Town's permit requires an engineering evaluation of the WWTP to determine individual pollutant limitations for the Dominion discharge. This engineering evaluation will result in the development of limitations to protect the sludge, biological process, and pass through of pollutants into the Clinch River that will violate the

water quality standards. The town must issue an industrial user permit to Dominion with these limitation and monitoring requirements to ensure the quality of the Dominion discharge.

The Town's permit from DEQ will require confirmation monitoring for chemical parameters and bioassays to ensure that the treatment plant effluent will allow the aquatic life, including the endangered species of mussels in the river to not only survive but to grow and reproduce unaffected by the discharge.

6. What impacts to wetlands and waterways are proposed?

Approximately 0.42 acre of emergent wetlands and 3,880 linear feet of perennial and intermittent streams is proposed to be eliminated by the construction of the solid waste management facility (i.e. ash landfill).

7. What does a VWP permit authorize?

The VWP permit is NOT a permit for the landfill. The VWP permit, in conjunction with a permit from the US Army Corps of Engineers, will authorize the placement of fill within the wetlands and jurisdictional stream bed. The placement of the fill within the waterways is necessary in order to construct the foundation of the landfill.

The VWP application requires that the facility develop a compensatory mitigation plan to achieve no-net-loss of Commonwealth waters through replacement and/or enhancement of function and quality.

8. How does the company propose to offset the losses of stream and wetland?

The applicant proposes using a combination of mitigation options (e.g., restoration, preservation, etc.) to offset impacts and meet or exceed regulatory mitigation requirements. The draft proposal submitted with the initial application proposes to:

- Restore approximately 1,580 linear feet of Meade Creek to natural steam channel conditions;
- Create approximately 2.0 acres of linear wetland within the flood plane of Meade Creek, and;
- Preserve in perpetuity approximately 6,100 feet in the adjacent Maize hollow watershed.

9. Where will the landfill be located?

The proposed SWMF site is located in Curley Hollow, adjacent to the proposed Power Plant location. Curley Hollow is the location of historical mining and contains abandoned mine land features that have not been reclaimed. The SWMF site is approximately 378 acres, which is part of a larger collection of land, about 1,700 acres in size, currently owned or under option by Dominion.

10. How will the disposal activities at the landfill be authorized and regulated?

The construction, operation and closure of the proposed landfill will require a permit issued by the DEQ Waste Division. DEQ is in receipt of the Part A application for the landfill.

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11. What types of requirements will be included in the waste permit to protect water quality?

    This permit application will require a structural design of the disposal area, which includes the installation of an impermeable liner and leachate collection system to prevent any potential contamination of soil and groundwater underneath the fill. The permit will also require ground water monitoring to measure the success of the installation.

12. How will the emissions be regulated?

    Dominion has filed an application with DEQ for an air quality permit for the plant.

13. What are the potential affects to streams from the deposition of particulates, mercury and other emissions?

    Measurable impacts to water quality are not anticipated because the Air Division's dispersion modeling of emissions indicates a wide dispersion of emissions from the plant. Also, these emissions will result in a very small increase in pollutant levels at any point. Therefore, DEQ believes that impact on the rivers and streams from air deposition will not be measurable.

14. How will the potential impacts to streams from potential atmospheric deposition be monitored?

    The DEQ will conduct continuing water quality monitoring of the water column, fish tissue, and sediment in the watershed to measure any potential impacts.

15. The DEQ staff contacts for this permit application are Mark Trent, mstrent@deq.virginia.gov, and Allen Newman , ajnewman@deq.virginia.gov